Amendments to the Claims:

Please cancel claims 2-11 in their entirety without prejudice or disclaimer to the subject matter set forth therein.

The following listing of the claims replaces and supersedes all previous listings.

1. (Currently Amended) A semiconductor device for emitting light when a voltage is applied comprising:

a first semiconductor region (3) whose conductivity is based on charge carriers of a first conductivity type,

a second semiconductor region (5) whose conductivity is based on the charge carriers of a second semiconductor type, which have a charge opposite to the charge carriers of the first conductivity type,

and an active semiconductor region (7A-7C) which is arranged between the first semiconductor region (3) and the second semiconductor region (5) and in which quantum structures (13) of a semiconductor material with a direct band gap are embedded, wherein the first semiconductor region (3), the second semiconductor region (5) and the active semiconductor region (7A-7C) each include $Al_xGA_{1-x}P$ with $0 < x < 1$ and the quantum structures (13) are made from III-V semiconductor material having a lattice constant which is greater than the GaP.

2.-11. (Canceled)

12. (New) The semiconductor device as set forth in claim 1 wherein the III-V semiconductor material includes InP.

13. (New) The semiconductor device as set forth in claim 1, wherein the semiconductor regions are embodied in the form of semiconductor layers (3, 5, 7A-7C) of a layer stack.

14. (New) A semiconductor device for emitting light when a voltage is applied comprising:

a first semiconductor region (3) whose conductivity is based on charge carriers of a first conductivity type;

a second semiconductor region (5) whose conductivity is based on the charge carriers of a second semiconductor type, which have a charge opposite to the charge carriers of the first conductivity type; and

an active semiconductor region (7A-7C) which is arranged between the first semiconductor region (3) and the second semiconductor region (5) and in which quantum structures (13) of a semiconductor material with a direct band gap are embedded;

wherein the first semiconductor region (3), the second semiconductor region (5) and the active semiconductor region (7A-7C) each include $Al_xGA_{1-x}P$ with $0 < x < 1$, and the quantum structures (13) are made from a III-V semiconductor material including InP, and wherein the quantum structures (13) are of a lateral extent which on average is less than about 50 nm.

15. (New) The semiconductor device as set forth in claim 14, wherein the average lateral extent of the quantum structures (13) is in the range of between 10 and 30 nm.

16. (New) The semiconductor device as set forth in claim 14, wherein the InP coverage is at least 0.5 ML.

17. (New) The semiconductor device as set forth in claim 14, wherein the semiconductor regions are embodied in the form of semiconductor layers (3, 5, 7A-7C) of a layer stack.

18. (New) A semiconductor device for emitting light when a voltage is applied comprising:

a first semiconductor region (3) whose conductivity is based on charge carriers of a first conductivity type;

a second semiconductor region (5) whose conductivity is based on the charge carriers of a second semiconductor type, which have a charge opposite to the charge carriers of the first conductivity type; and

an active semiconductor region including a plurality of sub-regions (7A-7C) arranged between the first semiconductor region (3) and the second semiconductor region (5) and in which quantum structures (13) of a semiconductor material with a direct band gap are embedded; wherein

the first semiconductor region (3), the second semiconductor region (5) and the active semiconductor region (7A-7C) each include $Al_xGA_{1-x}P$ with $0 < x < 1$,

the quantum structures (13) are made from a III-V semiconductor material including InP and are of a lateral extent which on average is less than about 50 nm, and the sub-regions have different InP coverages.

19. (New) The semiconductor device as set forth in claim 18, wherein the InP coverage is at least 0.5 ML.

20, (New) The semiconductor device as set forth in claim 18 wherein the InP coverage of a sub region is between 0.5 ML and 10 ML.

21. (New) The semiconductor device as set forth in claim 19 wherein the InP coverage of a sub region is between 0.5 ML and 4 ML.